

(c) Remarks

The pending claims under examination are 1, 3, 5 and 17 with claims 1 and 17 the independent claims. Claims 1 and 17 were amended to clarify the intended invention. Reconsideration of the claims is expressly requested.

Support for the relative humidity range of 70% to 100% is found, *inter alia*, on page 24, line 14 and in the Examples where relative humidity is 80% or 90%.

Claims 1, 3, 5 and 17 were rejected as obvious over Stucky '705 in view of Nogues '980 and Miyata. The Examiner takes the position that it would have been obvious for one of ordinary skill in the art to apply US 5,076,980 (Nogues) to WO 99/37705 (Stucky) to achieve the purpose of preventing cracks introduced in a drying process. Claims 1, 3, 5 and 17 were provisionally rejected as an obviousness-type double patenting of Claims 1-4 and 7 of Application Number 11/267,156 ('156 Application) in view of Miyata. All the grounds of rejection are respectfully traversed.

In order to achieve a *prima facie* case of obviousness, the prior art must suggest to the artisan each of the claimed steps of the present claimed process. One step involves forming the mesostructured film having aggregates of the surfactant oriented in a predetermined direction while retaining the substrate in a water-vapor containing atmosphere at a relative humidity of 70% to 100%. This feature achieves the beneficial effect of improving regularity of the mesostructure to promote crystallization of the pore walls.

To the contrary, Stucky teaches that it is a characteristic feature of his invention that a solution in which an inorganic precursor is dissolved in a non-aqueous medium is used to form the mesostructure of the metal oxide (non-silica). The metal oxide of Stucky has a much higher reactivity compared to silicon, so that preventing hydrolysis is crucial in forming a

mesostructure. Therefore, one should avoid conditions similar to hydrolysis. Stucky teaches that when a metal oxide is used as the precursor, water is removed from the environment as much as possible, so as not to promote hydrolysis.

On page 21, lines 19-26 of Stucky he teaches one should conduct his process in a non-aqueous media to slow hydrolysis which is said to hinder crystallization. Restraining hydrolysis is critical because non-silica oxides tend to crystallize and precipitate into bulk phases in aqueous media. On page 7, lines 1-7 Stucky teaches away from using large proportions of water since it makes a mesostructure assembly extremely difficult to control. On page 48, line 9 to page 49, line 4 Stucky teaches metal alkoxides are very reactive to hydrolysis. The hydrolytic route is said to lead to difficulties in stoichiometry and homogeneity. Therefore, a non-hydrolytic process is favored. The hydrolysis which Stucky seeks to avoid is characterized by the presence of water either as a liquid or as a vapor.

Accordingly, Stucky teaches away from using a high humidity process at, for example, 70-100% RH. Consequently, it is not obvious to employ a process parameter where a relative humidity is from 70% to 100% by combining Nogues and Stucky. Stucky teaches away from utilizing water or water vapor when forming a mesostructure of a metal oxide. Therefore one is led away from combining Stucky with Nogues and vice-versa.

Accordingly, the art rejection, having been overcome, should be withdrawn.

Claims 1, 3, 5 and 17 were provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-4, and 7 of copending Application No. 11/267,156 in view of Miyata. The Examiner indicated that even though the conflicting claims are not identical, they are not patentably distinct from each other. Once all the

rejections, except for the double patenting rejection, are withdrawn, Applicants will file the appropriate Terminal Disclaimer to resolve the double patenting rejection.

The claims should be allowed and the case passed to issue.

Applicant's undersigned attorney may be reached in our New York office by telephone at (212) 218-2100. All correspondence should continue to be directed to our address given below.

Respectfully submitted,

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